



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/807,144	03/24/2004	Yorio Wada	12706/10	3697

23838 7590 03/17/2005

KENYON & KENYON
1500 K STREET, N.W., SUITE 700
WASHINGTON, DC 20005

EXAMINER

JUBA JR, JOHN

ART UNIT	PAPER NUMBER
----------	--------------

2872

DATE MAILED: 03/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/807,144	Applicant(s) WADA ET AL.	
	Examiner John Juba, Jr.	Art Unit 2872	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 12 is/are allowed.
- 6) ☒ Claim(s) 6 is/are rejected.
- 7) ☒ Claim(s) 7 and 9-11 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8/3/04; 3/24/04</u> | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

The drawings were received on September 2, 2004. These drawings are acceptable to the examiner.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claim 6 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 4 of copending Application No. 10/917,479. Although the conflicting claims are not identical, they are

Art Unit: 2872

not patentably distinct from each other because claim 6 of the instant application is broader than claim 4 of the copending application.

The examiner believes that the claims are to be construed such that the expressions "from the substrate side" and "approaching the substrate side" are *directions*, rather than absolute locations in the lamination. As such, the designation of "first" portion and "third" portion appear to be arbitrary. Each claim recites first, second, and third portions adjacent each other in that order and "a low refractive index variation layer portion", but neither stipulates whether the portions are listed in order from the substrate. In each case, the "second" portion has a high index layer that is substantially the same as the higher index from one other portion, and the remaining portion has an index that decreases from the high index value of the second portion. In the base claim of copending claim 4 (10/917,479), if the "first" laminated portion is outermost in the system, both applications claim the same high index profile, namely, one in which the high index layer has a refractive index increasing from the substrate toward the second portion, and then decreasing from that of the second portion toward the outermost layers. That is, the second portion has a maximum value for the high refractive index layers, and the index of these layers decreases outwardly from the second portion.

Given the foregoing construction, claim 6 of the instant application is *broader* than copending claim 4 by omission of the recitations

"the refractive indices of the low refractive index layers are substantially equal to the lowest refractive index of the low refractive index layers constituting the second laminated portion" and

“the low refractive index layers of the first and second laminated portions have at least one of a low refractive index layer uniform portion in which the refractive indices are substantially uniform, or a low refractive index layer decreasing portion in which the refractive indices become gradually lower approaching the substrate.”

In other words, claim 6 of the instant application is *broader* than the copending claim as respects the refractive index variation of the low index layers. In this respect, claim 6 *generically dominates* copending claim 4. The examiner believes it axiomatic that a generic claim is an obvious variant of any species under the genus. Further, a structure which infringes copending claim 4, also infringes claim 6 of the instant application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Allowable Subject Matter

Claims 1 – 5, 8, 12 are allowable over the prior art. Claims 7 and 9 – 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Subject to the aforementioned double-patenting rejection, claim 6 distinguishes over the prior art. The following is a statement of reasons for the indication of allowable subject matter: The prior art, taken alone or in combination, fails to teach or fairly suggest *the combination* of the first, second, and third refractive index portions

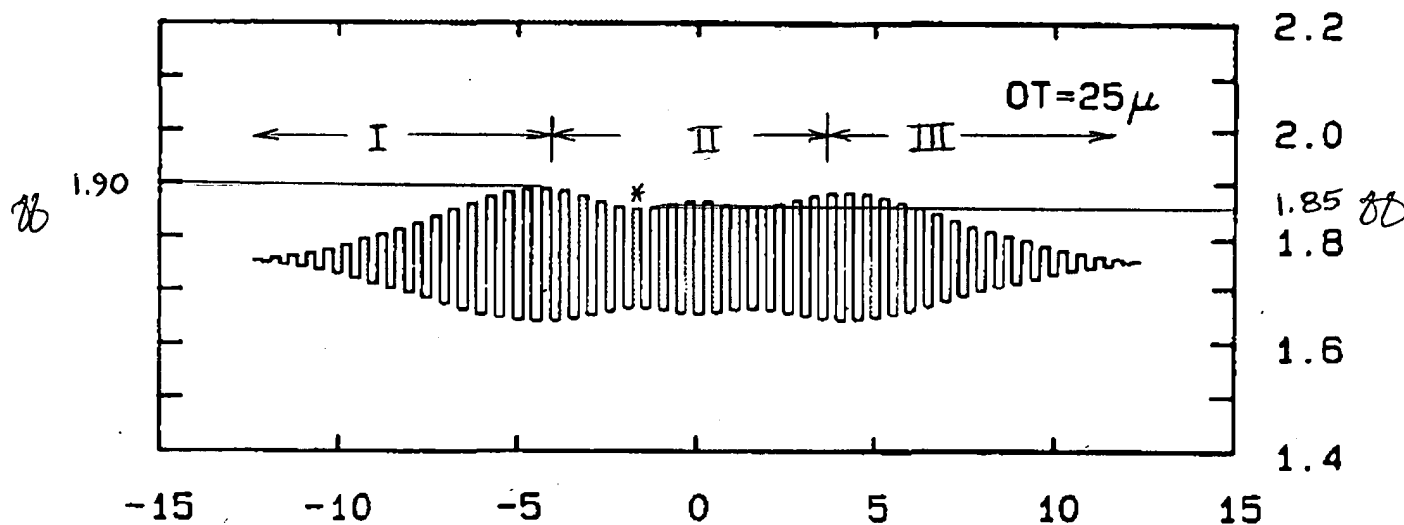
particularly wherein a high refractive index variation layer portion, in which the refractive index of the high refractive index layer is lower than the other two high refractive index layers that are adjacent on both sides thereof via the low refractive index layer is inserted into at least one of the first through third laminated portions, as recited in claim 1;

particularly wherein a low refractive index variation layer portion, in which the refractive index of the low refractive index layer is higher than the other two low refractive index layers that are adjacent on both sides thereof via the high refractive index layers is inserted into at least one of the first through third laminated portions, as recited in claim 6; or

particularly wherein at least one of such a high refractive index variation portion or a low refractive index variation portion is inserted into at least one of the first through third laminated portions, as recited in claim 8.

The examiner regards Southwell, et al (*Appl. Optics* 28(14)) as most nearly disclosing the recited structure. The examiner has labeled prospective first (I) through third (III) portions in the layer system of Figure 2c, below. The examiner has also identified a prospective "high refractive index variation layer portion" with an asterisk (*).

In the figure the maximum value of the high index layers in the first portion is about 1.90. The high index layers of the second portion have refractive indices between 1.85 – 1.90, for a difference of as little as 0.05. However, it is important to note that the minimum refractive index contrast in this layer system is about 0.008. Thus, although



the indices of the high index layers of the second portion are differ by about 3% of the maximum value in the first portion, one of ordinary skill would regard an index difference of 0.05 to be a *significant* departure from the maximum value in the first portion. That is, one of ordinary skill would *not* regard the refractive index of the high index layers in the second portion to be "*substantially* the same as the highest refractive index from among the high refractive index layers constituting the first laminated portion", as recited for example in claim 1 [emphasis added]. A similar analysis may be applied to the low index layers as relates to a low refractive index variation layer portion.

Applicants have also cited Hirai, et al (U.S. Patent number 6,115,180). First through third laminated portions can be identified in Figure 2A of the reference. Although there is a layer (e.g., the seventh) of refractive index intermediate two neighboring high index layers, such an index variation portion does not have two high refractive index layers that are adjacent on both sides thereof *via low refractive index layers*. Despite having an index higher than that of other layers (e.g., the 13th & 15th

Art Unit: 2872

layers), the identified layer is still not one of the high index layers, as defined in the claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

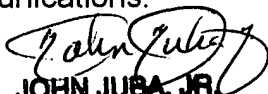
Scalora, et al (U.S. Patent number 5,559,825) disclose an optical filter comprising an alternating sequence of low index and high index layers and a portion wherein the refractive index of the high index layers increases in one direction.

ALPS ELECTRIC CO LTD (EP 1 258 745 A2) disclose an optical filter comprising an alternating sequence of low index and high index layers, the refractive indices variously increasing and decreasing from their values in a second lamination portion.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Juba whose telephone number is (571) 272-2314. The examiner can normally be reached on Mon.-Fri. 9 - 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Drew Dunn whose number is (571) 272-2312 and who can be reached on Mon.- Thu., 9 - 5.

The centralized fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306 for *all* communications.


JOHN JUBA, JR.
PRIMARY EXAMINER
Art Unit 2872

March 14, 2005